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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/507,214	09/16/2004	Daljit S. Ohbi	OHBI3001/REF	5192
23364 7590 08/06/2008 BACON & THOMAS, PLLC 625 SLATERS LANE FOURTH FLOOR ALEXANDRIA, VA 22314-1176			EXAMINER O HERN, BRENT T	
			ART UNIT	PAPER NUMBER
			1794	
			MAIL DATE	DELIVERY MODE
			08/06/2008	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/507,214

**Applicant(s)**

OHBI ET AL.

**Examiner**

Brent T. O'Hern

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 July 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20, 22-27 and 37-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20, 22-27 and 37-41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 28 July 2008 has been entered.

### ***Claims***

2. Claims 1-20, 22-27 and 37-41 are pending with claims 37-41 new.

## **WITHDRAWN REJECTIONS**

3. All rejections of record in the Office Action mailed 28 November 2007, pages 2-5, paragraphs 5-13, have been withdrawn due to Applicant's amendments in the Paper filed 28 July 2008.

## **NEW REJECTIONS**

### ***Claim Rejections - 35 USC § 103***

4. Claims 1-6, 8-9, 12-20, 22-27 and 37-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chan et al. (GB 0106046.6), which was published 2 May 2001 (or in the alternative Chan et al. (WO 02/072449) which claims priority to Chan ('046) with the same disclosure), in view of Kaszas et al. (US 5,276,094) and Whitby (US 1,634,924). See p. 1680 of *The Patents & Designs Journal*, 2 May 2001, The Patent Office (United Kingdom), No. 5842 as evidence of the publication date of Chan ('046).

Chan ('046) teaches a pharmaceutical dispensing device such as a pharmaceutical metered dose aerosol inhaler for treating asthma, wherein the dispenser has a hydrofluorocarbon propellant comprising propellant type 134a or 227 for dispensing a solution comprising ethanol with a valve body defining a chamber, and a valve member extending through the chamber with at least one annular seal cooperating with the valve members wherein the seal is comprises an isobutylene polymer or co-polymer, butyl rubber, neoprene (polychloroprene), chloro-butyl rubbers, bromo-butyl rubbers wherein the seal comprises a mineral filler such as silica and talc, processing aids, lubricants, pigments, etc. (*See p. 1, ll. 1-9 and p. 12, l. 23 to p. 13, l. 26.*), however, fails to expressly disclose a cross-linking agent such as sulfur or a sulfur-donating compound free of peroxide curing agents and a polysulphide accelerator derived from xanthic acid or a derivative thereof having an isopropyl group, with the polysulphide being substantially free from nitrogen, phosphorus and metallic elements, wherein the elastomeric composition comprises up to 3 wt. %/(1.5 wt. %) of the accelerator based on the total weight of the accelerator and polymer in the composition, wherein the weight ratio of the accelerator to the cross-linking agent in the elastomeric composition is in the range of from 1:1 to 3:1.

However, Kaszas ('094) teaches aerosol dispensers with polymeric barrier materials (*See col. 9, ll. 49-55, col. 1, ll. 14-16 and Abstract.*), wherein the barrier material is formed from an elastomeric composition comprising an isobutylene polymer or co-polymer thereof (*See col. 3, ll. 51-59.*); a cross-linking agent for the isobutylene polymer or co-polymer thereof, wherein the cross-linking agent is sulphur or a sulphur-

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donating compound, and wherein the cross-linking agent is free of peroxide curing agents (*See col. 8, ll. 1-9.*); and an accelerator for the cross-linking agent, wherein the accelerator is a polysulphide compound substantially free from nitrogen, phosphorus and metallic elements (*See col. 8, ll. 4-22. Substantially free is interpreted as including some of the elements as no specific value is set forth.*), wherein the elastomeric composition comprises up to 3.0/(1.5) wt. % of the accelerator based on the total weight of the accelerator and polymer in the composition (*See col. 8, ll. 4-17.*), wherein the weight ratio of the accelerator to the cross-linking agent in the elastomeric composition is in the range of from 1:1 to 3:1 (*See col. 8, ll. 4-17.*) for the purpose of providing a strong seal with very low permeability to gases (*See col. 2, ll. 36-42.*).

Whitby ('924) teaches providing accelerators for the vulcanization of rubber such as polysulphides substituted dithiocarbonic acid or derivatives thereof such as xanthic acids having isopropyl groups with sulfur (*See p. 1, l. 1 to p. 3, l. 63. Furthermore, any metals are removed during synthesis and are not part of the accelerator.*) for the purpose of providing a rubber product with better properties that can be prepared at lower temperatures (*See col. 1, ll. 1-8.*). Furthermore, cross linking agents such as sulfur and accelerators are well known ingredients in rubber seal production in order to polymerize the monomers per desired requirements. Additionally, how the seal is made does not matter since the composition of the seal is the same.

Therefore, it would have been obvious to one having ordinary skill in the art at the time Applicant's invention was made to use the above elastomeric composition as

taught by Kaszas ('094) and Whitby ('924) in Chan ('046) in order to provide a strong seal with very low permeability to gases.

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chan et al. (GB 0106046.6) (or in the alternative Chan et al. (WO 02/072449) which claims priority to Chan ('046) with the same disclosure.) in view of Whitby (US 1,634,924), Kaszas et al. (US 5,276,094) and Simons et al. (US 3,443,006).

Chan ('046), Whitby ('924) and Kaszas ('094) teach the seal discussed above, however, fail to expressly disclose wherein the elastomeric composition comprises a chlorine-substituted butadiene polymer/(2-chlorobuta-1,3-diene).

However, Simons ('006) teaches aerosol dispensers with an elastomeric composition comprising a chlorine-substituted butadiene polymer/(2-chlorobuta-1,3-diene) (*See col. 1, ll. 9-16.*) for the purpose of providing a seal with the desired balance of properties to form an effective seal (*See col. 1, ll. 1-5.*).

Therefore, it would have been obvious to one having ordinary skill in the art at the time Applicant's invention was made to provide the above chlorine substituted polymer as taught by Simons ('006) in Chan ('046) in order to provide an effective seal with desired properties.

6. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chan et al. (GB 0106046.6) (or in the alternative Chan et al. (WO 02/072449) which claims priority to Chan ('046) with the same disclosure) in view of Whitby (US 1,634,924), Kaszas et al. (US 5,276,094) and Stevenson (US 4,695,609).

Chan ('046), Whitby ('924) and Kaszas ('094) teach the seal discussed above, however, fail to expressly disclose wherein the polysulphide compound is diisopropyl xanthogen polysulphide.

However, Stevenson ('609) teaches polysulphide accelerators wherein the polysulphide compound is diisopropyl xanthogen polysulphide (*See col. 5, ll. 21-23.*) for the purpose of providing efficient processing without the use of amines or other accelerator materials (*See col. 4, ll. 41-54.*).

Therefore, it would have been obvious to one having ordinary skill in the art at the time Applicant's invention was made to use the polysulphide compound of diisopropyl xanthogen polysulphide as taught by Stevenson ('609) in Chan ('046) in order to provide efficient processing without the use of amines or other accelerator materials.

7. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chan et al. (GB 0106046.6) published on 2 May 2001 (or in the alternative Chan et al. (WO 02/072449) which claims priority to Chan ('046) with the same disclosure.) in view of Whitby (US 1,634,924), Kaszas et al. (US 5,276,094) and Blok et al. (US 6,300,421).

Chan ('046), Whitby ('924) and Kaszas ('094) teach the seal discussed above, however, fail to expressly disclose wherein the polysulphide compound comprises three or more bridging sulphur atoms.

However, Blok ('421) teaches polymerized rubber formulations where the polysulphide compound comprises three or more bridging sulphur atoms (*See col. 6, ll.*

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54-62.) for the purpose of providing effective coupling with the other components (*See col. 6, ll. 50-53.*).

Therefore, it would have been obvious to one having ordinary skill in the art at the time Applicant's invention was made to use a polysulphide compound comprising three or more bridging sulphur atoms as taught by Blok ('421) in Chan ('046) in order to provide effective coupling with the other components.

#### **ANSWERS TO APPLICANT'S ARGUMENTS**

8. In response to Applicant's arguments (*pp. 7-15 of Applicant's Paper filed 28 July 2008*) regarding the teachings of Klokke-Bethke et al. (US 5,370,862) and Kaszas et al. (US 5,276,094) and the teachings of the secondary references in combination with Kaszas ('094), it is noted that Klokke ('862) is no longer cited as a reference and Kaszas ('094) is no longer cited as a primary reference, thus, all arguments regarding such are moot. Additionally, the scope of all claims have changed by the amendments.

9. In response to Applicant's arguments (*pp. 7-15 of Applicant's Paper filed 28 July 2008*) regarding the teachings of Kaszas ('094), it is noted that the teachings of the amended claims of Kaszas ('094) in view of new references Chan and Whitby ('924) are discussed above.

10. In response to Applicant's arguments (*p. 12, para. 3 to p. 13, para. 3 of Applicant's Paper filed 28 July 2008*) regarding Simons ('006), Stevenson ('609) and Blok ('421), it is noted that said arguments relate to Kaszas ('094) which are moot in view of the new rejections based on Chan as discussed above. Furthermore, the known method of polymerizing rubber is the same whether it is for a dispenser or a



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gasket since the polymers are the same and react in the same manner no matter what the intended use may be. Furthermore, Simons ('006) relates to aerosol dispensing device.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brent T. O'Hern whose telephone number is (571)272-0496. The examiner can normally be reached on Monday-Thursday, 9:00-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Brent T O'Hern/  
Examiner, Art Unit 1794  
August 1, 2008

/Elizabeth M. Cole/  
Primary Examiner, Art Unit 1794